

REMARKS

In the Office Action of September 5, 2007, the Examiner rejected claims 1, 2, 8, 10, 11, 13, 16, 17, 18, 26 and 33 under 35 USC 103(a) as being unpatentable over Von Broembsen in view of Price, et al. Claims 22-25 were rejected under §103(a) as being unpatentable over Von Broembsen and Price, et al and further in view of Bentley. Claims 14, 15, 19 and 20 were rejected under §103(a) as being unpatentable over Von Broembsen and Price, et al and further in view of Grannersberger. Claim 4 was rejected under §103(a) as being unpatentable over Von Broembsen and Price, et al and further in view of Hamand. Claim 5 was rejected under §103(a) as being unpatentable over Von Broembsen, Price, et al and Hamand and further in view of Wiegand. Claims 12 and 21 were rejected under §103(a) as being unpatentable over Von Broembsen and Price, et al and further in view of Sicilano. Claim 6 was rejected under §103(a) as being unpatentable over Von Broembsen, Price, et al and further in view of Ahmed, et al. Claim 7 was rejected under §103(a) as being unpatentable over Von Broembsen, Price, et al, Ahmed, et al and further in view of Wiegand. Claim 3 was rejected under §103(a) as being unpatentable over Von Broembsen, Price, et al and further in view of Ofenloch.

By the present amendment, Applicants have canceled claim 1 and has submitted new independent claims 34, 35 and 41 based generally upon claims 5 or 7, 11 and 12 respectively.

With regard to claim 34, the Examiner previously rejected claim 5 as being unpatentable over Von Broembsen, Price, et al, Hamand and further in view of Wiegand. Claim 7 was rejected as being unpatentable over Von Broembsen, Price, et al, Ahmed, et al and further in view of Wiegand. The invention set forth in claim 34 is directed to an electrochemical cell device arranged in an automatic cleaning appliance used in the cleaning of objects. The patent to Von Broembsen, on the other hand, is directed to a chlorination system for pools, spas and portable water supplies. Von Broembsen discloses an electrolytic cell having a plurality of plates which are connected to a source of direct current, however, Von Broembsen does not

teach what that source of current is, other than it is spaced away from the electrolytic cell. Von Broembsen teaches to use header rods 36, 38 for supplying current to the electrodes 40, 42 and including the use of electrically conducting rods 66 to distribute currents to each of the electrodes. At column 7, lines 38-47 this arrangement of the chlorinator is described and Von Broembsen states that such an arrangement minimizes heat build up to the electrodes and that “no ancillary cooling means are generally required for chlorinators of the present invention.” Thus, Von Broembsen teaches that the construction utilized does not require an arrangement for cooling the electrical components of the chlorinator. This would also extend to the direct current source which is not further described by Von Broembsen but is only shown as being separated by a distance from the chlorinator.

In contrast, claim 34 specifies that the source of direct current comprises a source of rectified alternating current provided by electrical components and also specifically provides that a supply of water used in the appliance is led to the electrical components providing the rectified current by a conduit and with the water being led by another conduit leading from the components to the cavity in the appliance to be used in the cleaning of the objects. Thus, while Von Broembsen teaches that no cooling is required, claim 34 specifically defines a cooling arrangement in which water used in the cleaning appliance is used to cool the electrical components and is then directed to the cavity in the appliance to be used to clean the objects.

The Examiner relied on the teachings of Wiegand for showing cooling electrical components with water. In the arrangement shown by Wiegand, a recirculation system is provided in which water is continuously recirculated through bus bars by utilization of a pump. The Wiegand arrangement requires the use of a heat exchanger to dissipate heat from the recirculating water and also an ion exchange unit to keep the conductivity of the water at a minimum. Wiegand’s arrangement specifically teaches away from utilizing the recirculating water for any other purpose, such as cleaning objects, but rather the water is only continuously recirculated and continuously de-ionized by the ion exchange unit. Combining the teachings of

Wiegand with Von Broembsen would not result in an operative system since Von Broembsen specifically teaches to utilize a conductive water fluid (having a salinity of 0.07%). Wiegand's ion exchange unit would defeat the operability of Von Broembsen's electrolytic cell and thus the mutual teachings of these two references specifically teach away from a combination thereof.

The Examiner relies on the teachings of Price, et al for showing the use of a sensor in connection with an automatic cleaning appliance. While Price, et al discloses the use of a sensor for selectively energizing or de-energizing an electrolytic device, Price, et al does not provide any teachings with respect to the source of current to be used by the electrochemical cell nor any teaching with respect to cooling the components of the current supply. Therefore, the teachings of Price, et al, even if combined with the teachings of Von Broembsen, would not render obvious the structure defined in claim 34. Further, Von Broembsen specifically teaches at column 8, lines 19-25 to operate the chlorinator continuously and not intermittently in response to a sensor or otherwise. A combination of the teachings of Price, et al with Von Broembsen would destroy the teachings of Von Broembsen which specifically intends to continuously energize the electrolytic cell. Thus, a combination of the teachings of Price, et al with Von Broembsen is improper.

In view of the foregoing, it is clear that claim 34 is patentably distinguishable over the references cited by the Examiner and that the combination suggested by the Examiner is improper. Therefore, Applicants respectfully request the Examiner to indicate independent claim 34 and its dependent claims patentable.

New independent claim 35 is generally based on prior claim 11. Prior claim 11 was rejected on a combination of Von Broembsen and Price, et al. Claim 35 defines an electrochemical cell arranged in automatic appliance and including a conduit connecting to a source of water in the appliance to be used in the cleaning of objects, the conduit connecting to the electrochemical cell device to deliver water to the electrical cell device and a storage space provided in the electrochemical cell device downstream of the conduit and upstream of the outlet

arranged to receive a supply of salt composition to be dissolved by water obtained from the conduit, the water with dissolved salt being acted on by the plates in the electrochemical cell before the water exits the outlet.

The Examiner states that Von Broembsen teaches a storage space to receive a supply of salt composition to be dissolved by water obtained from a source of water and the appliance to be used in the cleaning of objects. What Von Broembsen actually teaches is a float mechanism positioned in the swimming pool, as shown at element 50 which is used to cause the entire body of water in the swimming pool to achieve a salinity of 0.07%. This is achieved, by Von Broembsen, by adding "40 pound bags of salt" to the pool. Von Broembsen does not provide the storage space for the salt in the electrochemical cell device, element 26 of FIG. 1, but rather provides the salt storage space in the equivalent of the appliance cavity. This results in requiring a sufficient amount of salt to raise the salinity of all of the water in the pool, rather than only dissolving enough salt to be used in the electrochemical cell as specified in the arrangement provided by claim 35.

The patent to Price, et al is only used for teaching the use of a sensor which, as pointed out above, is directly contrary to the teachings of Von Broembsen which specifically teaches to energize the chlorinator continuously and not intermittently. Price, et al does not teach or suggest providing a storage space in the electrochemical cell device for salt so that the water with dissolved salt can be acted on by the plates in the electrochemical cell before the water exits the outlet as defined by claim 35. Therefore, Applicants respectfully submit that claim 35 and each of its dependent claims is patentably distinguishable over the references relied on by the Examiner.

New claim 41 is based generally on prior claim 12. Prior claim 12 was rejected as being unpatentable over Von Broembsen and Price, et al and further in view of Sicilano. The Examiner acknowledges that Von Broembsen's structure modified with the teachings of Price, et al fails to disclose a lock out mechanism and an activating apparatus for the lock out mechanism

including a sensor arranged to detect a concentration level of chlorine. Claim 41 further specifies a user openable door for the cavity with the lock out mechanism being operatively associated with the door to prevent opening of the door under certain conditions. The Examiner relies on the teachings of Sicilano for a lock out mechanism and an activating apparatus. What Sicilano actually teaches is to have a controller that monitors the level of chlorine in a swimming pool and operates an LED light in a chlorine dispenser when the detected amount of chlorine is low, and also intermittently actuates the light when the operation of the chlorine dispenser fails to change the chlorine level in the pool, indicating an empty chlorine dispenser.

Sicilano does not provide any teaching regarding the locking or unlocking of a user openable door and is now defined in claim 41, but rather only turns on a light when chlorine is being dispensed or intermittently operates a light when the dispenser is empty. Such an arrangement falls far short of teaching the structure now more specifically defined in claim 41.

Since even a combination of the references relied on by the Examiner fails to teach the elements defined in claim 41, Applicants respectfully submit that claim 41 and its dependent claims are each patentably distinguishable over the references cited by the Examiner.

In view of the foregoing amendments and remarks, Applicants respectfully submit that all of the claims of the application are allowable and Applicants respectfully request the Examiner to indicate all claims as allowed and to pass the application to issue.

Respectfully submitted,

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